UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,858	01/05/2004	Toshiaki Tsuda	Q79273	3964

65565 7590 01/16/2007

SUGHRUE-265550
2100 PENNSYLVANIA AVE. NW
WASHINGTON, DC 20037-3213

EXAMINER	
CANNING, ANTHONY J	
ART UNIT	PAPER NUMBER
2879	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/750,858	TSUDA ET AL.	
	Examiner	Art Unit	
	Anthony J. Canning	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement of Request for Continued Examination

1. The request for continued examination of the instant application was entered on 11 December 2006.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokuichi et al. (J.P. 2001-076677) (of record) in view of Tsuda et al. (U.S. 2002/0130601 A1).

4. As to claims 1, 15 and 16, Tokuichi et al. disclose a discharge bulb, comprising: a ceramic, straight, and cylindrical light emitting tube (see Drawing 1, item 2; paragraph 11; alumina is a ceramic) said light emitting tube having sealed end portions (see Drawing 1, item 6; paragraph 0014, jointing material is interpreted by the examiner as a sealant, which will seal the end portions; high-pressure lamps must be sealed to contain an internal high-pressure) to form an enclosed space therein (see Drawing 1; the hollow region inside the cylinder, item 2; paragraph 0007); and electrodes (see Drawing 1, item 5; paragraph 0012) opposingly disposed in said light emitting tube (see Drawing 1, items 5; they are disposed vertically from one another) where said

enclosed space is filled with a light emitting substance (paragraph 0011; the photogene is the light-emitting substance) and a starting rare gas (paragraph 0011; a halogenated substance is a rare gas); and a strip-shaped first light-blocking portion disposed at a first portion of said light-emitting tube that corresponds to at least a rear one of the sealed end portions of the light-emitting tube (see Drawing 3, item 10; paragraph 0014, molybdenum will create a light-blocking layer, and a means for positioning a hot-zone of luminous distribution at a cutoff line of the luminous distribution) wherein the first light-blocking portion extends, in a circumferential direction (see Drawing 1, item 6, which includes item 10 and surrounds the interior of the light-emitting tube), over at least a range from an upper side to both lateral sides of the light-emitting tube (see Drawing 1, item 6), the first light-blocking portion being provided as a portion of the light-emitting tube (see Drawing 3, item 10; since the molybdenum blocking layer is provided on the light-emitting tube, the examiner interprets this to mean a part of the light-emitting tube). Tokuichi et al. fail to disclose an arc tube fixedly forwardly elongating from an insulating base positioned behind said arc tube.

In the same field of endeavor, Tsuda et al. disclose a discharge bulb including an arc tube (see Fig. 1, item 20; paragraph 0096) fixedly forwardly elongating from an insulating base (see Fig. 1, item 30; paragraph 0094) positioned behind said arc tube (see Fig. 1; items 20 and 30). Tsuda et al. further disclose that the arc tube lamp is an ultraviolet-ray blocking shroud glass (paragraph 0096), and that the insulating base can be connected to a power supply (paragraph 0094).

Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to modify the discharge bulb of Tokuichi et al. to include an arc tube

fixedly forwardly elongating from an insulating base positioned behind said arc tube, as taught by Tsuda et al., to have an ultraviolet-ray blocking glass shroud and a base that can be connected to a power supply.

5. As to claims 8 and 20, Tokuichi et al. disclose a discharge bulb, comprising: a ceramic, straight, and cylindrical light emitting tube (see Drawing 1, item 2; paragraph 11; alumina is a ceramic) said light emitting tube having sealed end portions (see Drawing 1, item 6; paragraph 0014, jointing material is interpreted by the examiner as a sealant, which will seal the end portions; high-pressure lamps must be sealed to contain an internal high-pressure) to form an enclosed space therein (see Drawing 1; the hollow region inside the cylinder, item 2; paragraph 0007); and electrodes (see Drawing 1, item 5; paragraph 0012) opposingly disposed in said light emitting tube (see Drawing 1, items 5; they are disposed vertically from one another) where said enclosed space is filled with a light emitting substance (paragraph 0011; the photogene is the light-emitting substance) and a starting rare gas (paragraph 0011; a halogenated substance is a rare gas); and a strip-shaped first light-blocking portion disposed at a first portion of said light-emitting tube that corresponds to at least a rear one of the sealed end portions of the light-emitting tube (see Drawing 3, item 10; paragraph 0014, molybdenum will create a light-blocking layer, and a means for positioning a hot-zone of luminous distribution at a cutoff line of the luminous distribution) wherein the first light-blocking portion extends, in a circumferential direction (see Drawing 1, item 6, which includes item 10 and surrounds the interior of the light-emitting tube), over at least a range from an upper side to both lateral sides of the light-emitting tube (see Drawing 1, item 6), the first light-blocking portion being provided as a portion of the light-emitting tube (see Drawing 3, item 10; since the molybdenum blocking layer is provided on

the light-emitting tube, the examiner interprets this to mean a part of the light-emitting tube). Tokuichi et al. fail to disclose an arc tube fixedly forwardly elongating from an insulating base positioned behind said arc tube, and an ultraviolet-ray blocking shroud surrounding the light-emitting tube.

In the same field of endeavor, Tsuda et al. disclose a discharge bulb including an arc tube (see Fig. 1, item 10; paragraph 0094) fixedly forwardly elongating from an insulating base (see Fig. 1, item 30; paragraph 0094) positioned behind said arc tube (see Fig. 1, items 20 and 30), and an ultra-violet ray blocking shroud (see Drawing 1, item 20; paragraph 0096) surrounding the light-emitting tube (see Fig. 1, items 11 and 20; paragraph 0097). Tsuda et al. further disclose that the ultraviolet-ray blocking shroud glass block ultra-violet rays in a wavelength harmful to the human body (paragraph 0098), and that the arc tube fixedly elongating from the insulating base can be connected to a power supply (paragraph 0094).

Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to modify the discharge bulb of Tokuichi et al. to include an arc tube fixedly forwardly elongating from an insulating base positioned behind said arc tube, and an ultra-violet ray blocking shroud surrounding the light-emitting vessel, as taught by Tsuda et al., to block ultra-violet rays in a wavelength harmful to the human body and a base that can be connected to a power supply.

6. As to claims 2, 9 and 17, Tokuichi et al. and Tsuda et al. disclose the discharge bulb according to claims 1, 8 and 16. Tokuichi et al. further disclose a second light blocking portion disposed at a second portion of the light-emitting tube that corresponds to a front one of the sealed end portions of the light-emitting tube, where the second light blocking portion extends, in

the circumferential direction over at least a range, from a lower side to both of the lateral sides of the light-emitting tube (see Fig. 1, item 6; see Fig. 3, items 6, 10 and 11; paragraph 0014, molybdenum will block light).

7. As to claims 3, 4, 10, 11 and 18, Tokuichi et al. and Tsuda et al. disclose the discharge bulb of claims 1, 2, 8, 9 and 17. Tokuichi et al. further disclose the second light-blocking portion has width, in an axial direction of the light-emitting tube, at least corresponding to a width, in the axial direction, of the front and rear sealed end portion of the light-emitting tube (see Fig. 1, item 6; see Fig. 3, item 10; the layer has width and height both of which are axial directions).

8. As to claims 5, 6, 12 and 13, Tokuichi et al. and Tsuda et al. disclose the discharge bulb of claims 1, 2 8 and 9. Tokuichi et al. further disclose that the first light-blocking portion extends in the circumferential direction on both the lateral sides of the light-emitting tube to positions that horizontally coincide in level with a lowermost and uppermost position of the rear end sealed portion of the light-emitting tube (see Fig. 1, items 6 and Fig. 3, item 10; paragraph 0007, the diameter of item 6, which is also item 10 is the same as the inside of the cylinder).

9. As to claims 7, 14 and 19, Tokuichi et al. and Tsuda et al. disclose the discharge bulb of claims 1, 8 and 16. Tokuichi et al. further disclose that the first light-blocking portion is disposed in the circumferential direction over a whole circumference the light-emitting tube (see Fig. 1, item 6 and Fig. 3, item 10; paragraph 0007, the diameter of item 6, which is also item 10 is the same as the inside of the cylinder).

Response to Arguments

10. The examiner acknowledges the amendments to claims 1 and 15.

11. In light of the amendments a new rejection has been given.

Applicant's arguments, see REMARKS, filed 11 December 2006, with respect to the rejection(s) of claim(s) 8-14 under Japanese Patent Application No. 2001-07667 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Japanese Patent Application No. 2001-07667 in view of Tsuda et al. (U.S. 2002/0130601 A1).

Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Canning whose telephone number is (571)-272-2486. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh D. Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Canning
Patent Examiner
Art Unit 2879
3 January 2007

KARABI GUHA
PRIMARY EXAMINER